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10/562,526	05/19/2006	Jean-Yves Chane-Ching	99342.00074US	8056

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MCCARTER & ENGLISH LLP
CITYPLACE I
185 ASYLUM STREET
HARTFORD, CT 06103

EXAMINER

MARTINEZ, BRITTANY M

ART UNIT	PAPER NUMBER
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1793

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/562,526	Applicant(s) CHANE-CHING ET AL.	
	Examiner BRITTANY M. MARTINEZ	Art Unit 1793	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 May 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-15, 17 and 19-22 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-15, 17, and 19-22 is/are rejected.
- 7) ☒ Claim(s) 4, 11-13 and 17 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☒ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>5/19/2006</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Citation to the Specification will be in the following format (S. p. #, P) where # denotes the page number and P is the paragraph number. Citation to U. S. Patent literature will be in the format (Inventor, c. #, l. LL) where # is the column number and LL is the line number. Foreign patent literature will be in the format (Inventor, P) where P denotes the paragraph number.

Status of Application

Claims 1-15, 17, and 19-22 are pending in the instant application and have been examined. **Claims 16 and 18** have been canceled.

Priority

The instant application is a national stage entry of PCT/FR04/01645, filed June 28, 2004, which claims priority to FR 03/07878, filed June 30, 2003. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Oath/Declaration

1. Receipt is acknowledged of papers filed under 35 U.S.C. 119 (a)-(d) based on PCT/FR04/01645, filed June 28, 2004. Applicants have not complied with the requirements of 37 CFR 1.63(c), since the oath, declaration or application data sheet

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does not acknowledge the filing of the PCT. A new oath, declaration or application data sheet is required in the body of which the present application should be identified by application number and filing date.

Abstract

The abstract of the disclosure does not commence on a separate sheet in accordance with 37 CFR 1.52(b)(4). A new abstract of the disclosure is required and must be presented on a separate sheet, apart from any other text.

1. Applicants are reminded of the proper content of an abstract of the disclosure.

A patent abstract is a concise statement of the technical disclosure of the patent and should include that which is new in the art to which the invention pertains. If the patent is of a basic nature, the entire technical disclosure may be new in the art, and the abstract should be directed to the entire disclosure. If the patent is in the nature of an improvement in an old apparatus, process, product, or composition, the abstract should include the technical disclosure of the improvement. In certain patents, particularly those for compounds and compositions, wherein the process for making and/or the use thereof are not obvious, the abstract should set forth a process for making and/or use thereof. If the new technical disclosure involves modifications or alternatives, the abstract should mention by way of example the preferred modification or alternative.

The abstract should not refer to purported merits or speculative applications of the invention and should not compare the invention with the prior art.

Where applicable, the abstract should include the following:

- (1) if a machine or apparatus, its organization and operation;
- (2) if an article, its method of making;
- (3) if a chemical compound, its identity and use;
- (4) if a mixture, its ingredients;
- (5) if a process, the steps.

Extensive mechanical and design details of apparatus should not be given.

2. Applicants are reminded of the proper language and format for an abstract of the disclosure.

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The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

Specification

2. The disclosure is objected to because of the following informalities: the title on the first page of the instant specification, "Nanometric Calcium Phosphate Platelets" (S. p. 1, l. 1), differs from the title of the instant application, "Nanoscale Calcium Phosphate Tablets." Appropriate correction is required.

Claim Objections

3. **Claims 4, 11-13, and 17** are objected to because of the following informalities: in the Claim amendment submitted May 19, 2006, the comma following "NMR." in **Claim 4** was not deleted. In **Claim 11**, the comma following "step iv);" needs to be deleted and "ration" needs to be changed to "ratio." In **Claims 12-13**, "calcium salts" should be changed to "calcium salt" in order to allow for consistency with **Claim 10**. In **Claim 17**, "emthod" should be changed to "method." Appropriate correction is required.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. **Claims 13 and 20** are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicants regard as the invention.

3. **Claim 13** recites the limitation "the solution" in the 2nd line of the claim. There is insufficient antecedent basis for this limitation in the claim.

4. **Claim 20** recites the limitation "the solution" in the 2nd line of the claim. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 102/103

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

- (a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.
- (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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8. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

9. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicants are advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

10. **Claims 1-3, 5, and 7-9** are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Itoi et al. (US 6,159,437).

11. With regard to **Claims 1-3**, Itoi discloses a composition comprising calcium phosphate platelets which exhibit apatite structure and wherein the calcium phosphate platelets have a long-axis length of 30-300 nm and a 10-100 nm short-axis (Itoi, c. 2, l. 55-57; c. 3, l. 21-27).

12. With regard to **Claim 5**, Itoi discloses a plurality of the platelets having an apatite structure (Itoi, c. 2, l. 55-57; c. 3, l. 21-27). Although Itoi does not explicitly disclose the

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platelets exhibiting a chemical shift of between 3 ppm and 3.4 ppm, measured by phosphorous-31 MAS NMR, the platelets of Itoi would be expected to exhibit a chemical shift of between 3 ppm and 3.4 ppm, measured by phosphorous-31 MAS NMR since the platelets of Itoi have an apatite structure.

13. With regard to **Claim 7**, Itoi discloses hydroxyapatite (Itoi, c. 2, l. 55-57), $\text{Ca}_{10}(\text{PO}_4)_6(\text{OH})_2$, which has a Ca/P molar ratio of 1.67.

14. With regard to **Claim 8**, Itoi discloses an aqueous dispersion comprising calcium phosphate platelets (Itoi, c. 2, l. 55-57; c. 3, l. 21-27 and 36-65).

15. With regard to **Claim 9**, Itoi discloses a colloidal dispersion comprising calcium phosphate platelets in an aqueous solution containing a dispersing agent (Itoi, c. 2, l. 55-57; c. 3, l. 21-27 and 36-65).

16. **Claims 1-3 and 7-9** are also obvious over Itoi because anticipation is the epitome of obviousness.

17. **Claims 1-2** are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Lee et al. (WO 00/15194).

18. With regard to **Claims 1-2**, Lee discloses a composition comprising calcium phosphate platelets which exhibit apatite structure and wherein the calcium phosphate platelets have a length of 300 nm (Lee, p. 10, l. 18-20; p. 15, l. 30-31; Claims 15-17).

19. **Claims 1-2** are also obvious over Lee because anticipation is the epitome of obviousness.

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20. **Claims 1-2** are rejected under 35 U.S.C. 102(a) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Roeder et al. (US 2003/0031698 A1).

21. With regard to **Claims 1-2**, Roeder discloses a composition comprising calcium phosphate platelets which exhibit monetite structure and wherein the calcium phosphate platelets have a length of between 1 nm and 500 nm (Roeder, "Abstract;" Fig. 2; Table 1; p. 2, 0014; p. 3, 0033 and 0035; p. 5, 0047).

22. **Claims 1-2** are also obvious over Roeder because anticipation is the epitome of obviousness.

Claim Rejections - 35 USC § 103

23. **Claims 3-4, 6, and 8-9** are rejected under 35 U.S.C. 103(a) as being unpatentable over Roeder et al. (US 2003/0031698 A1) as applied to **Claim 1** above, and further as discussed below.

24. With regard to **Claim 4**, Roeder discloses a plurality of the platelets having a monetite structure (Roeder, "Abstract;" Fig. 2; Table 1; p. 2, 0014; p. 3, 0033 and 0035; p. 5, 0047).

25. With regard to **Claim 6**, Roeder discloses monetite (Roeder, Table 1), CaHPO_4 , which has a Ca/P molar ratio of 1.

26. With regard to **Claim 8**, Roeder discloses an aqueous dispersion comprising calcium phosphate platelets (Roeder, p. 3, 0031).

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27. With regard to **Claim 9**, Roeder discloses a colloidal dispersion comprising calcium phosphate platelets in an aqueous solution containing a dispersing agent (Roeder, p. 3, 0031).

28. Roeder does not explicitly disclose a calcium phosphate platelet thickness of between 1 nm and 40 nm (**Claim 3**); or the platelets exhibiting a chemical shift of between -1.4 ppm and -1 ppm, as measured by phosphorous-31 MAS NMR (**Claim 4**).

29. With regard to **Claim 3**, an expected platelet thickness is a result effective variable since one of ordinary skill in the art would expect different properties in the product as such thickness varies. Since the platelet thickness is a result effective variable, it is within the ordinary skill of one of ordinary skill in the art to develop a suitable calcium phosphate platelet thickness. *In re Boesch*, 617 F.2d 272, 205 USPQ 215 (CCPA 1980).

30. With regard to **Claim 4**, the platelets of Roeder would be expected to exhibit a chemical shift of between -1.4 ppm and -1 ppm, as measured by phosphorous-31 MAS NMR since the platelets of Roeder have a monetite structure.

31. **Claims 10, 12-15, and 17** are rejected under 35 U.S.C. 103(a) as being unpatentable over Kumta et al. (US 7,247,288 B2) in view of Itoi et al. (US 6,159,437).

32. With regard to **Claim 10**, Kumta discloses a method for preparing nanocrystalline calcium phosphate platelets (Kumta, "Abstract") comprising the steps of: i) preparing a solution of calcium salt; ii) adding a phosphate solution to the solution obtained in step i) (Kumta, c. 14, l. 58-67; c. 15, l. 1-3; c. 18, l. 27-32 and 40-47), so as to obtain a calcium

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to phosphorus molar ratio of greater than 1.67 (Kumta, c. 4, l. 48-51), wherein the pH is maintained constant (Kumta, c. 6, l. 8-18); iii) heat treating the solution obtained in step ii) (Kumta, c. 15, l. 5-8; c. 18, l. 50-53); iv) separating the calcium phosphate platelets formed from the solution obtained in step iii) (Kumta, c. 15, l. 5-8); wherein in at least one of steps i) or ii), the solutions further comprise ammonium ions (Kumta, c. 1, l. 66; c. 8, l. 35-41).

33. With regard to **Claims 10 and 13**, Kumta further discloses that the reaction stoichiometry can be adjusted in such a way that the ratio of calcium ions to phosphate ions favors the formation of a particular size of calcium phosphate crystals (Kumta, c. 8, l. 6-9).

34. With regard to **Claim 12**, Kumta discloses CaCl_2 and $\text{Ca}(\text{NO}_3)_2$ as possible calcium salts (Kumta, c. 1, l. 66; c. 4, l. 53-57; c. 8, l. 27-35).

35. With regard to **Claim 13**, Kumta discloses the concentration of calcium salts in solution being 2 M (Kumta, c. 18, l. 28-30).

36. With regard to **Claim 14**, Kumta discloses $(\text{NH}_4)_2(\text{HPO}_4)$ as a possible phosphate source for the phosphate solution (Kumta, c. 1, l. 66).

37. With regard to **Claim 15**, Kumta discloses the Ca/P molar ratio being greater than 1.67 (Kumta, c. 4, l. 48-51).

38. Kumta does not explicitly disclose the calcium phosphate platelets having a length of between 250 nm and 800 nm (**Claim 10**); adjusting the pH of the solution to a selected value of between 4 and 6 (**Claim 10**); addition over a period of time of between 30 minutes and 4 hours (**Claim 10**); heat treating the solution obtained in step ii) at a

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temperature of between 50°C and 95°C (**Claim 10**); or the temperature of the heat treatment in step iii) being between 60°C and 90°C (**Claim 17**).

39. With regard to **Claims 10 and 17**, expected pH, addition times, and heating temperatures are result effective variables since one of ordinary skill in the art would expect different properties in the process and resulting product as such parameters vary. Since pH, addition times, and heating temperatures are result effective variables, it is within the ordinary skill of one of ordinary skill in the art to develop a suitable solution pH range, addition time, and heat treating temperature range. *In re Boesch*, 617 F.2d 272, 205 USPQ 215 (CCPA 1980).

40. Further, with regard to **Claims 10 and 17**, Itoi discloses a composition comprising calcium phosphate platelets which exhibit apatite structure and wherein the calcium phosphate platelets have a long-axis length of 30-300 nm and a 10-100 nm short-axis obtained by reaction at a temperature between room temperature and 100°C (Itoi, c. 2, l. 55-57; c. 3, l. 21-29).

41. Thus, it would have been obvious to one of ordinary skill in the art to modify the process of Kumta with the platelet size and heat treating temperature of Itoi in order to obtain a process capable of producing calcium phosphate platelets useful in an apatite slurry in which secondary apatite particles are substantially redispersed (Itoi, "Abstract").

42. **Claims 11 and 19-22** are rejected under 35 U.S.C. 103(a) as being unpatentable over Kumta et al. (US 7,247,288 B2) in view of Roeder et al. (US 2003/0031698 A1).

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43. With regard to **Claim 11**, Kumta discloses a method for preparing nanocrystalline calcium phosphate platelets (Kumta, "Abstract") comprising the steps of: i) preparing a solution of calcium salt; ii) adding a phosphate solution to the solution obtained in step i) (Kumta, c. 14, l. 58-67; c. 15, l. 1-3; c. 18, l. 27-32 and 40-47), so as to obtain a calcium to phosphorus molar ratio of greater than 1.67 (Kumta, c. 4, l. 48-51), wherein the pH is maintained constant (Kumta, c. 6, l. 8-18); iii) heat treating the solution obtained in step ii) (Kumta, c. 15, l. 5-8; c. 18, l. 50-53); v) separating the calcium phosphate platelets formed from the solution obtained in step iii) (Kumta, c. 15, l. 5-8); wherein in at least one of steps i) or ii), the solutions further comprise ammonium ions (Kumta, c. 1, l. 66; c. 8, l. 35-41).

44. With regard to **Claims 11 and 20**, Kumta further discloses that the reaction stoichiometry can be adjusted in such a way that the ratio of calcium ions to phosphate ions favors the formation of a particular size of calcium phosphate crystals (Kumta, c. 8, l. 6-9).

45. With regard to **Claim 19**, Kumta discloses CaCl_2 and $\text{Ca}(\text{NO}_3)_2$ as possible calcium salts (Kumta, c. 1, l. 66; c. 4, l. 53-57; c. 8, l. 27-35).

46. With regard to **Claim 20**, Kumta discloses the concentration of calcium salts in solution being 2 M (Kumta, c. 18, l. 28-30).

47. With regard to **Claim 21**, Kumta discloses $(\text{NH}_4)_2(\text{HPO}_4)$ as a possible phosphate source for the phosphate solution (Kumta, c. 1, l. 66).

48. With regard to **Claim 22**, Kumta discloses the Ca/P molar ratio being greater than 1.67 (Kumta, c. 4, l. 48-51).

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49. Kumta does not explicitly disclose the calcium phosphate platelets having a length of between 250 nm and 800 nm (**Claim 11**); adjusting the pH of the solution to a selected value of between 4 and 6 (**Claim 11**); addition over a period of time of between 30 minutes and 4 hours (**Claim 11**); Ca/P molar ratio of between 1 and 2.5 (**Claim 11**); heat treating the solution obtained in step ii) at a temperature of between 50°C and 95°C (**Claim 11**); or adjusting the pH of the solution obtained in step iii) to a value of between 8 and 9.5 (**Claim 11**).

50. With regard to **Claim 11**, expected pH, addition times, molar ratios, and heating temperatures are result effective variables since one of ordinary skill in the art would expect different properties in the process and resulting product as such parameters vary. Since pH, addition times, and heating temperatures are result effective variables, it is within the ordinary skill of one of ordinary skill in the art to develop a suitable solution pH range, addition time, molar ratio, and heat treating temperature range. *In re Boesch*, 617 F.2d 272, 205 USPQ 215 (CCPA 1980).

51. Further, with regard to **Claim 11**, Roeder discloses a composition comprising calcium phosphate platelets which exhibit monetite structure and wherein the calcium phosphate platelets have a length of between 1 nm and 500 nm (Roeder, "Abstract;" Fig. 2; Table 1; p. 2, 0014; p. 3, 0033 and 0035; p. 5, 0047). Still further, Roeder discloses monetite (Roeder, Table 1), CaHPO_4 , which has a Ca/P molar ratio of 1.

52. Thus, it would have been obvious to one of ordinary skill in the art to modify the process of Kumta with the platelets of Roeder in order to obtain a process capable of

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producing calcium phosphate platelets useful in composite biomaterials (Roeder, "Abstract").

Double Patenting

53. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

54. **Claims 1-5, 8-15, 17, and 19-22** are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over Claims 1-4, 9, and 14-19 of copending Application No. 10/563167. Although the conflicting claims are not identical, they are not patentably distinct from each other because copending Application No. 10/563167 discloses a composition comprising calcium phosphate platelets, dispersions comprising calcium phosphate platelets, and a process for making such, substantially as in the instant claims.

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This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Conclusion

1. No claim is allowed.
2. In general, prior art renders the claimed invention anticipated and obvious.
3. Applicant is required to provide pinpoint citation to the specification (i.e. page and paragraph number) to support any amendments to the claims in all subsequent communication with the examiner. **No new matter will be allowed.**

Any inquiry concerning this communication or earlier communications from the examiner should be directed to BRITTANY M. MARTINEZ whose telephone number is (571) 270-3586. The examiner can normally be reached Monday-Friday 9:00AM-5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stanley Silverman can be reached at (571) 272-1358. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Wayne Langel/
Primary Examiner, Art Unit 1793

BMM

/Brittany M Martinez/
Examiner, Art Unit 1793